

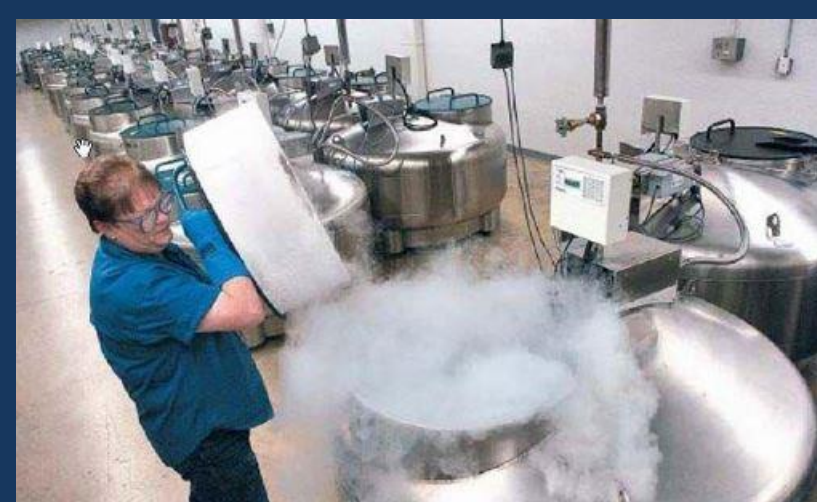


The USDA Agricultural Research Service National Plant Germplasm System is made up of 29 germplasm collections located throughout the United States, including Hawaii and Puerto Rico, and manage almost 15,000 plant species.

Four of these locations work together to acquire, preserve and evaluate rice germplasm for researchers all over the world.

Freezer storage (0°F/ -18°C) is used to preserve seed viability. Within this controlled environment, seeds may survive in freezer storage for more than 100 years.

Cryogenic storage uses liquid nitrogen (-321°F/ -196°C) to preserve germplasm.



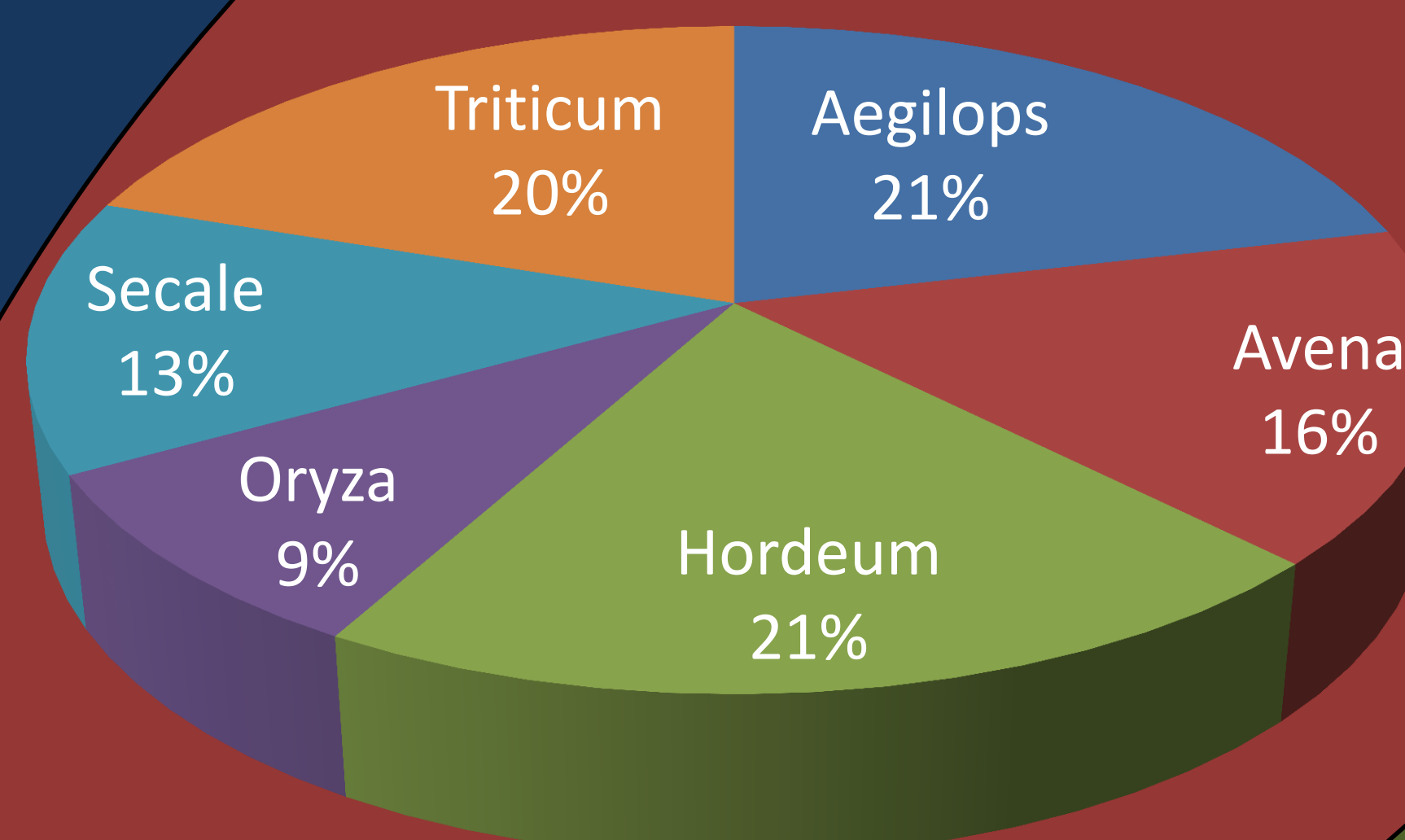
NCGRP has pioneered the use of cryogenic technologies for agricultural genebanks.



The National Center for Genetic Resources Preservation (NCGRP) in **Ft. Collins, Colorado**, maintains a back-up collection of all plant and animal genetic material.



National Center for Genetic Resources Preservation
Ft. Collins, Colorado

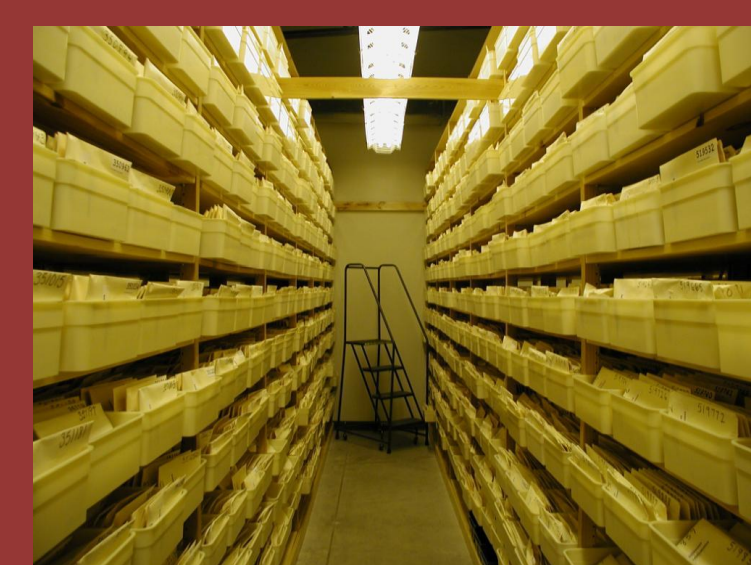


The National Small Grains Collection (NSGC) in **Aberdeen, Idaho**, maintains collections representing global diversity of the small grains; including wheat (*Triticum*), barley (*Hordeum*), oat (*Avena*), rice (*Oryza*), rye (*Secale*), triticale, and various wild relatives (including *Aegilops*).



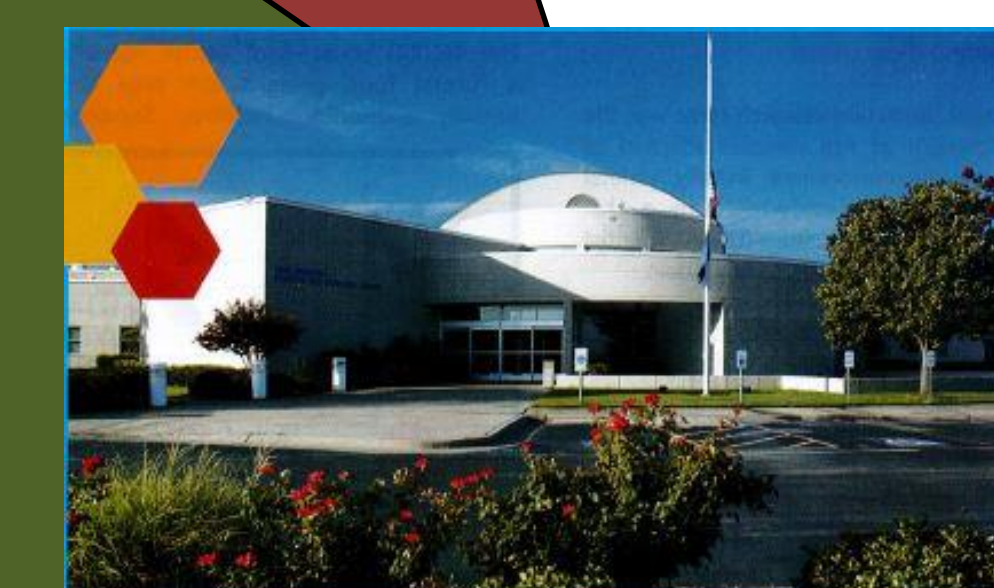
National Small Grains Germplasm Research Facility
Aberdeen, Idaho

The rice world collection, a part of the NSGC, has 19,040 accessions of 12 *Oryza* species, from 114 countries.



Germplasm is distributed worldwide for research and educational purposes.

Scientists at the Dale Bumpers National Rice Research Center (DBNRRC) in Stuttgart perform research in the areas of disease resistance, genetic diversity, and processing and nutritional quality improvement in efforts to assist rice breeders to produce cultivars that eventually become available to growers and finally consumers.



Dale Bumpers National Rice Research Center
Stuttgart, Arkansas

In addition to the research that continues at DBNRRC, employees complete rice seed increases and rejuvenation for the NSGC at Stuttgart, or at the winter nursery in Puerto Rico.



The Genetic Stocks-*Oryza* (GSOR) Collection, at the DBNRRC, serves as a repository for molecularly characterized genetic resources that are important to the rice research community.

Researchers deposit specialized sets of germplasm, such as mapping populations, that are then used to study genetic variation related to agronomic traits, disease resistance, maturity, yield, milling quality and cooking quality.



Example of the genetic variation that can be seen in height and maturity of a mapping population

Currently managing 36,629 accessions, the GSOR includes 16 mapping populations, 8 specialized collections and 30 genetic mutants.

Genetic stocks are distributed worldwide for research and educational purposes.